



Kharkiv Workshop – September 2016

OSMAAnd



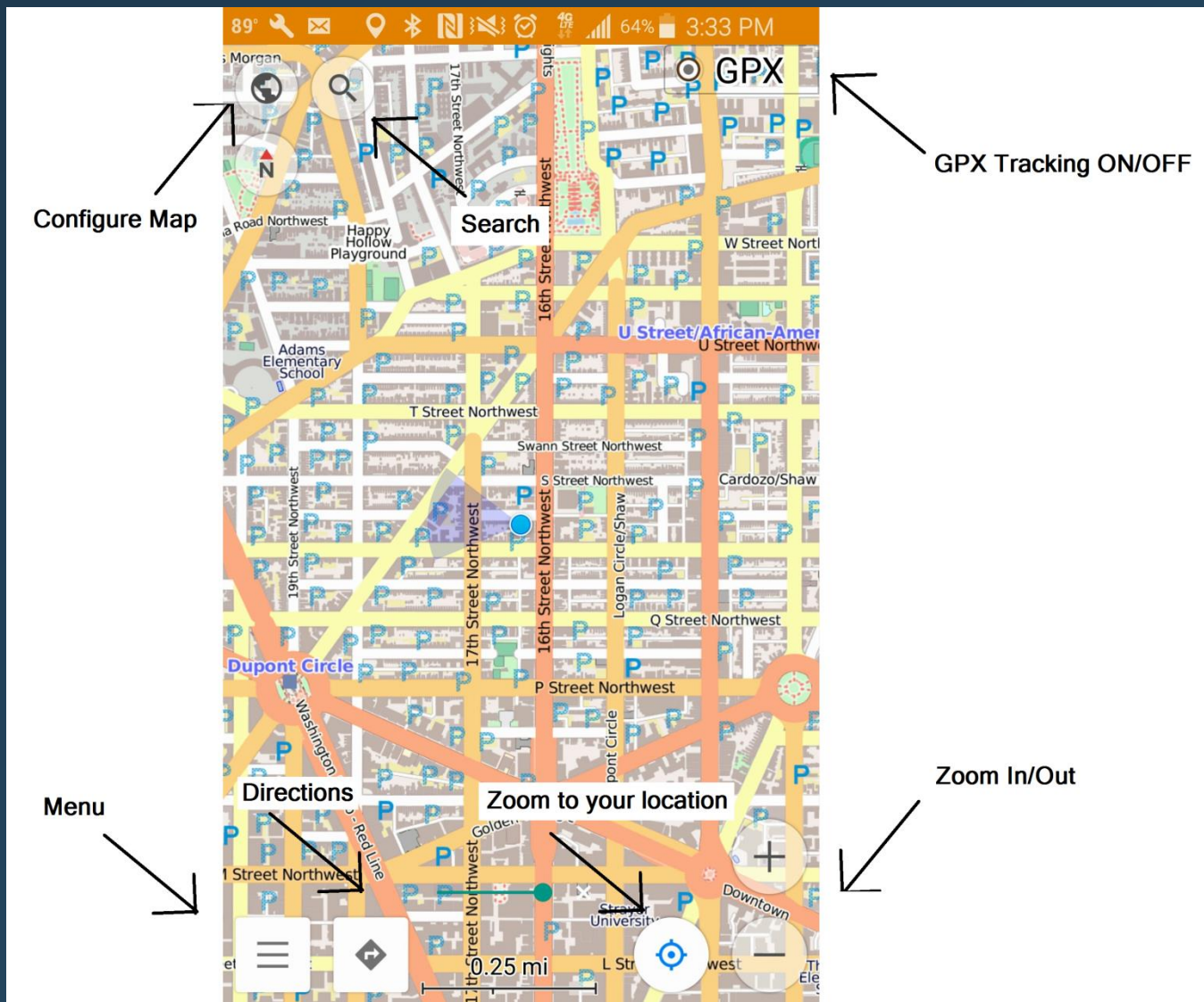


What is OSMAnd?

- OSMAnd is a GPS navigation app for smartphones and tablets. It is capable of giving directions, editing OSM maps and recording GPX tracks and points of interest (POI).
- GPX tracks are particularly useful for recording sidewalks and other pedestrian or bike paths not easily discernible in satellite imagery.
- Operating System: Android, iOS (?)



OSMand Main Map Objects





Setting up OSMAnd

1. Create OSM Account

2. Download the app

3. Languages

- Menu > Settings > General Settings > Display Language
- Both Russian and Ukrainian available

4. Activate Plugins

- Menu > Plugins > then make your selection
- *Note: some plugins cost extra*
- Suggested Plugins: Online Maps, Trip Recording, OSM Editing, and Audio/Video Notes

5. Download Maps

- Menu > Manage Map Files > Select the map you want to download
- Suggested Map: **World Overview Map**
- *Note: best to do this while on wifi*

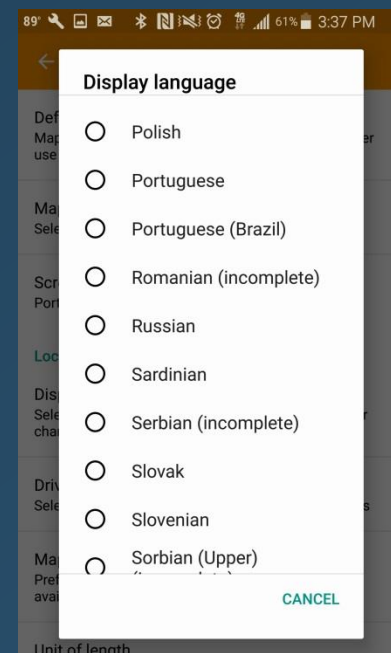
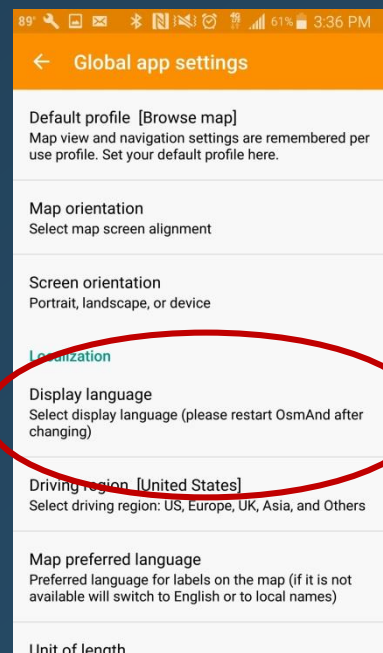
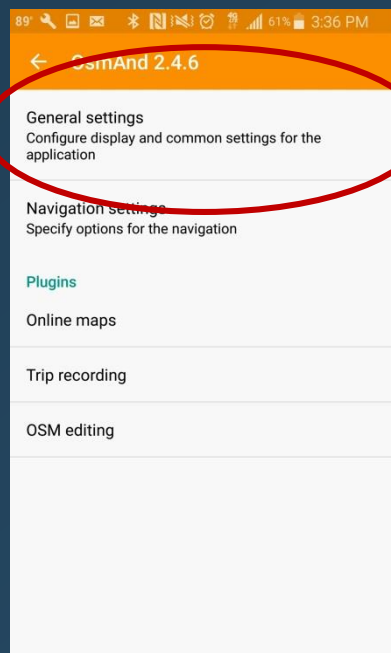
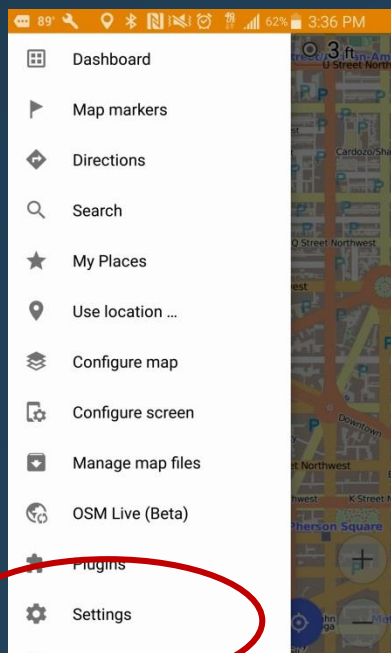




Setting up OSMAnd

Languages

- Menu > Settings > General Settings > Display Language
- Both Russian and Ukrainian available





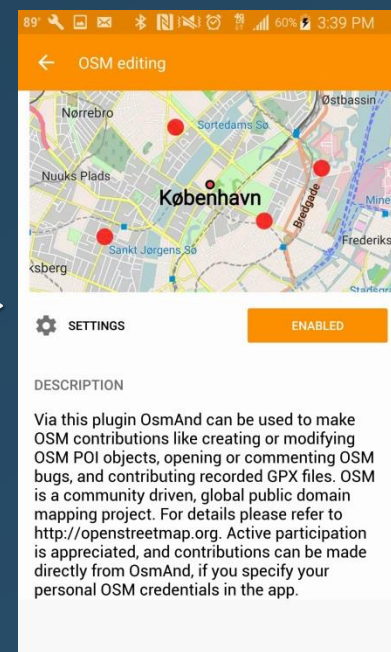
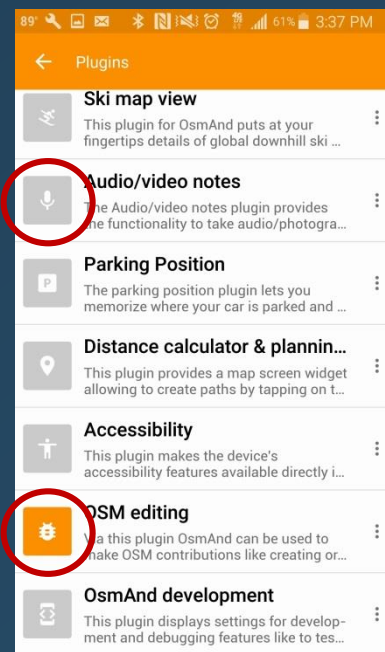
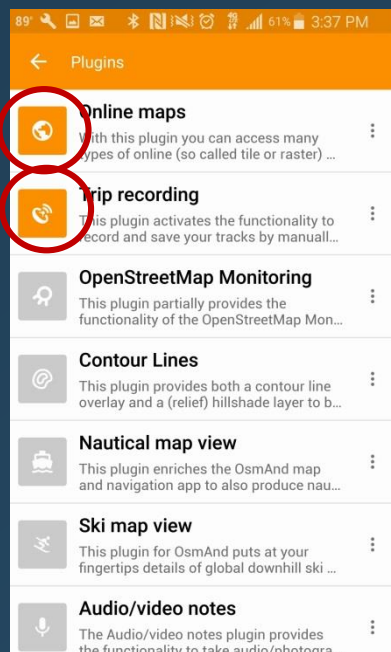
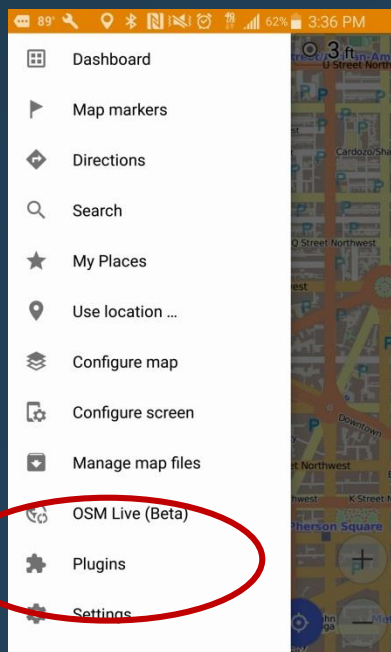
Setting up OSMAnd

Activate Plugins

- Menu > Plugins > make your selection *Note: some plugins cost extra*
- Suggested Plugins: Online Maps, Trip Recording, OSM Editing, & Audio/Video Notes

OSM Editing

- Sign In: Plugins > OSM editing > Settings > OpenStreetMap login and password

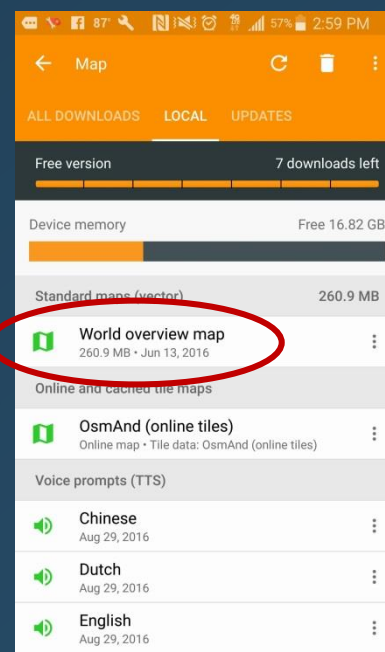
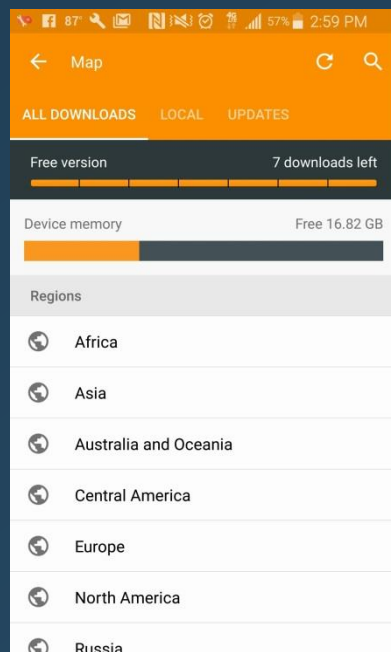
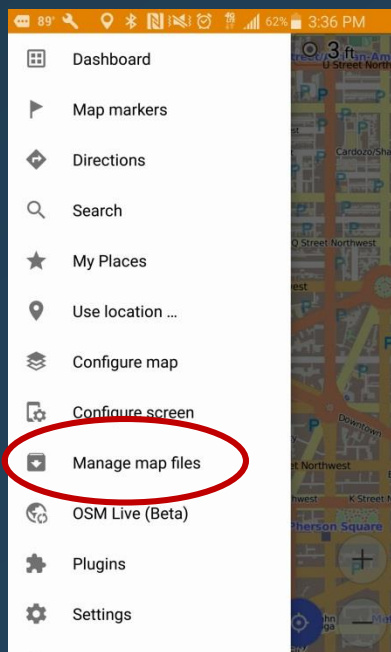




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Creating Tracks

Record Track

- Main Map > GPX button
- Red = recording



Display Track

- Menu > My Places >  > Display on Map

Upload to OSM

1. Menu > My Places > My Tracks



- 'Rec' = All recorded tracks

2. Upload Button > Select Track > Upload Button



- *Note: If you receive the error 'Unauthorized' sign in again in the setting of the OSM editing plugin*

Export


- Send track as a .gpx file through email or social media using the share button
- Menu > My Places >  >  Share
- These can be uploaded to OSM, ArcGIS, QGIS, Google Earth, Garmin and more





Taking Notes

Taking Notes

While recording a track, if you come across a feature of particular interest you can make a note of it by pressing the Notes  Start to make an **audio**, **video** or **photo** recording of the feature.

Note: if the photo appears on the map with a blank background it may have recorded false coordinates or no coordinates at all. Delete the photo and try again.

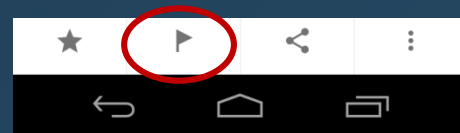
Note: These features will be visible in your map and noted in the feature visible in OSM ID Editor but can only be edited/viewed using the JOSM Editor, which we will not be going into here. However, they are good to reference for digitizing in the lab.




Making Notes & POIs

Points of Interest (POIs)

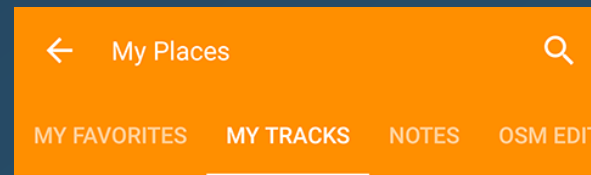
When each of these photos are tapped the option to create a POI appear at the bottom of the screen. This opens a form for you to fill out.



To modify the OSM basemap with your POI click the upload button. 

All of the notes and POIs can be viewed by going to Menu > My Places and swiping right or left to access the different tabs.

Note: Once POIs are used to modify OSM they are deleted from your phone and require a wait time before they are added to the OSM basemap.





Tracks in OSM

An OSM track (or trace) is a static line layer that cannot be edited. The purpose is to produce raw data tracks that are a record of the GPS data.

The screenshot shows the OpenStreetMap web application. At the top, there's a navigation bar with 'Edit', 'History', and 'Export' buttons. Below it, a search bar is visible. The main map area displays a satellite view with numerous colorful lines representing GPS tracks. A right sidebar contains map controls, including a 'Background' section with options like 'Bing aerial imagery', 'Mapbox Satellite', and 'OpenStreetMap (Standard)'. There's also a 'Locator Overlay' checkbox and a 'Minimap' option. At the bottom of the map, a scale bar indicates 500 feet. The bottom status bar shows 'Edits by g00g01, MrTNTCat, _sev, and 111 others' and '1553 hidden features'.



Tracks in OSM

View your traces by clicking GPS Traces > See your traces
Open these in the map and digitize the path

Public GPS traces

Browse recent GPS track uploads



Upload a trace

See your traces

Newer Traces | Page 1 | Older Traces

-  **PENDING**
-  **newroad.gpx** ... 1 minute ago [more](#) / [map](#) / [edit](#) **PUBLIC**
New road 125W
by bloom34
-  **8_sept_2016_10_11_04_AM_2016_09_08_10_11_04.gpx** ... (4,478 points) ... 6 minutes ago [more](#) / [map](#) / [edit](#) **IDENTIFIABLE**
Mapeo Manaure
by Vilmer Torres in Mapa, Manaure
-  **Sidewalks_behind_Demoss.gpx.gz** ... (188 points) ... 9 minutes ago [more](#) / [map](#) / [edit](#) **PUBLIC**
Sidewalks behind Demoss
by blendergeek in osmand
-  **8_sept_2016_10_11_04_AM_2016_09_08_10_11_04.gpx** ... (4,478 points) ... 11 minutes ago [more](#) / [map](#) / [edit](#) **IDENTIFIABLE**
Mapeo Manaure
by Vilmer Torres in Mapa, Manaure
-  **Toft_Comberton_and_the_Eversdens__Ramble.gpx** ... (706 points) ... 17 minutes ago [more](#) / [map](#) / [edit](#) **PUBLIC**
827
by andy mackey in Cambridgeshire, UK
-  **2016_09_09_09_46_41.gpx** ... (5,533 points) ... 28 minutes ago [more](#) / [map](#) / [edit](#) **IDENTIFIABLE**
2016-09-09_09-46-41 carlton ng4 (westdale lane east + others)
by alexkemp
-  **09.09.2016_Chichester_2016_09_09_10_02_07.gpx** ... (9,781 points) ... 28 minutes ago [more](#) / [map](#) / [edit](#) **IDENTIFIABLE**
Amadea
by udokar
-  **8_Sep_2016_08_25_04_2016_09_08_08_25_04.gpx** ... (1,738 points) ... 32 minutes ago [more](#) / [map](#) / [edit](#) **PUBLIC**



Tracks in OSM

View your traces by clicking GPS Traces > See your traces
Click '**edit**' to open your track in the map and digitize the path

The screenshot shows the OpenStreetMap interface. At the top, there's a navigation bar with 'OpenStreetMap' and buttons for 'Edit', 'History', and 'Export'. To the right, there are links for 'GPS Traces', 'User Diaries', 'Copyright', 'Help', and 'About', along with a user profile dropdown for 'GeoArchExplorer'. Below this, the 'Your GPS traces' section is visible, with a link to 'Browse recent GPS track uploads'. A list of traces is shown, with the first one being '2016_08_30_08_02_Tue.gpx.gz ... (201 points) ... about 18 hours ago'. The 'edit' link in this entry is circled in red. Below the trace name, it says '2016-08-30_08-02_Tue by GeoArchExplorer in osmand'.



Tracks in OSM

View your traces by clicking GPS Traces > See your traces
Click 'edit' to open your track in the map and digitize the path

OpenStreetMap [Edit](#) [History](#) [Export](#) [GPS Traces](#) [User Diaries](#) [Copyright](#) [Help](#) [About](#) [GeoArchExplorer](#)

+ Zoom in to Edit

1500 ft

Edits by 42429, aude, RoadGeek, MD99 and 342 others



Digitize Tracks

- Now that the track is visible in the map you can digitize a clean version of the line.
- **GPX traces** are the raw data recorded by your device's GPS and therefore are subject to signal errors. This is why they are not added to OSM in the same way other features are in the interest of QA/QC.
- Use your **video**, **photo**, or **audio notes** to add attribute data to the features you encountered.





View in ArcGIS Online

AGOL: Open map viewer > Add > Add layer from file > navigate to the file on your computer

Home ▾ My Map

New Map ▾ Jolene ▾



View in AGOL

1. **View:** Line, nodes, and attributes
2. **Still cannot edit, same as OSM**

Home ▾ My Map

New Map ▾ Jolene ▾

Details Add ▾ Basemap Analysis Save ▾ Share Print Directions Measure Bookmarks Find address or place

About Content Legend

Contents

- 2016-08-30 08-02 Tue
 - Track - Trackpoints
 - Track
 - Topographic

2016-08-30 08-02 Tue - Track - Trackpoints (201 features, 1 selected)

Latitude	Longitude	Elevation	Time	HDOP
38.90	-77.04	-4.00	August 30, 2016	9.00
38.90	-77.04	-5.00	August 30, 2016	11.00
38.90	-77.04	1.00	August 30, 2016	7.00
38.90	-77.04	1.00	August 30, 2016	7.00
38.90	-77.04	3.00	August 30, 2016	7.00

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Links



- 1) [OSMand Website](#)
- 2) [OpenStreetMap: How to upload GPX tracks](#)
- 3) [OSMand Audio/Video Plugin](#)
- 4) [GPX in ArcGIS Online](#)